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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
RIMELL, SAMUEL G

ART UNIT	PAPER NUMBER
2175	

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/701,611	BERNARD, NIVELET
	Examiner	**Art Unit**
	Sam Rimell	2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *35-46 and 53* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *35-46, 53* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

(signature) SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 35-46 and 53 are rejected under 35 U.S.C. 102(e) as being anticipated by

Depledge et al. (U.S. Patent 5,899,988).

Claim 35: FIG. 1 of Depledge discloses a first data table. FIG. 2A and 2B illustrate a

method by which the first data table can be preconditioned by the creating of indexes to permit

more rapid searching of the first table. The method involves analyzing each of the predicates in

the table (The predicates are "North", South", "East", "West", "Business" and "Individual") by

separating these predicates into individual bitmap indexes (FIG. 2A and FIG. 2B).

The predicates have an "ordinal relationship" (i.e. a specific order) in both in the original

data table (FIG. 1) and in each of the bitmap indexes (FIGS. 2A and 2B). For example, the

ordinal relationship of the predicates in FIG. 1 is EAST→NORTH→WEST→EAST→SOUTH

→NORTH. In FIG. 2B, the ordinal relationship is BUSINESS→INDIVIDUAL.

A nomenclature is used, which are rules for converting predicates into numbers. The

nomenclature, or rules for converting, call for each instance of the predicate in a row of the first

data table to be indicated by the number "1", and each instance of the predicate missing from a

row in the data table to be indicated by "0". By this nomenclature, each predicate is numerically

encoded, and the encoded predicates form multiple second data tables (FIGS. 2A and 2B).

Claim 36: The nomenclature illustrated in FIGS. 2A and 2B creates an association between the predicates and the numerical values. The predicates become replaced with the numerical values, as seen in the tables of FIGS. 2A and 2B. In addition, the predicates in FIG. 2B follow an alphabetical ordinal relationship. In other words, the ordinal relationship BUSINESS→INDIVIDUAL is alphabetical.

Claim 37: The second data tables (FIGS. 2A and 2B) are compacted in comparison to the first data table (FIG. 1) in that they have fewer rows.

Claim 38-40: Each of the rows of binary digits in FIGS. 2A and 2B reads as a vector. Since the system of Depledge et al. will process these vectors during search queries, the system of Depledge et al. is considered to be a system with "vectorial capabilities".

Claim 41: Reference is made to FIG. 3. A query is received in the system that includes the plaintext predicates "Business", "East" and "South".

In FIGS. 1-2B, the predicates are plaintext and are arranged in an ordinal relationship (i.e. a specified order) in the original data table and in the indexes. For example, the ordinal relationship BUSINESS→INDIVIDUAL exists in FIG. 2B.

The query in FIG.3 is presented for the purpose of searching the first table (FIG. 1). The query is numerically encoded in accordance with a nomenclature that calls for each instance of the predicate in a row of the first table to be indicated by a "1", and each instance of a predicate missing from a row in the first table to be indicated by "0". The encoded predicates are processed in accordance with a second table (The query table of FIG. 3 reads as this second table).

Claim 42: In FIG. 3, each plaintext predicate in the query is transformed into a row of binary digits. The row of digits reads as a vector. These vectors represent the values found in the second table (FIG. 3). The predicate "Business" derives from an index having an alphabetical ordinal relationship (See FIG. 2B).

Claim 43: In the table of FIG. 3, each of the vectors are compared to each of the other lines of the table. The coincidences between the vectors are calculated and a result record is returned (302) which is a new vector corresponding to the search result.

Claim 44: The returned record (302) is translated back into plain text to indicate the results of the query.

Claim 45: The result (302) is a set of numbers. A set of numbers reads as a "statistical form".

Claim 46: See remarks for claim 40.

Claim 53: See remarks for claim 35. The "collated sequence" is considered to be the same as the "ordinal relationship" described in claim 35.

Remarks

Applicant's arguments have been considered.

Applicant argues that the predicates of Depledge lack ordinal or sequential relationships. This argument is considered to be incorrect.

The term "ordinal relationship" simply means that the predicates have a certain order, and "sequential relationship" simply means that the predicates follow a certain sequence. Examiner maintains that the arrangement of predicates in FIS. 1-2B follow these requirements. Follow example, in creating the index of FIG. 2B, the predicates will be arranged in the order of

BUSINESS→INDIVIDUAL. This is also a sequence, and is further an alphabetical sequence.

Examiner thus maintains that all of the claimed limitations in Depledge et al. are met.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication should be directed to Sam Rimell at

telephone number (703) 306-5626.

Sam Rimell
Primary Examiner
Art Unit 2175